

WHAT IS CLAIMED IS:

1. A system for sensing ambient light, comprising:
a first sensor for measuring a first ambient light level;
a second sensor for measuring a second ambient light level; and
a processor receiving the first ambient light level and the second ambient light level, the processor being configured to determine a relative intensity change in the measured ambient light levels for each of the first and second sensors and determine ambient light stability in response to the relative intensity change in order to generate filtered first and second ambient light levels.
2. The system of claim 1 further comprising an illumination source being configured to adjust the brightness thereof in response to one of the first and second filtered ambient light levels.
3. The system of claim 2 wherein the brightness is adjusted in response to the greater of the first and second filtered ambient light levels.
4. The system of claim 2 wherein the rate of adjustment of the brightness is proportional to the ambient light stability.
5. The system of claim 1 wherein the processor is configured to determine the relative intensity change for each of the first and second sensors by comparing the ambient light level and a previous ambient light level for each one of the sensors.

6. The system of claim 1 wherein the processor is configured to determine the ambient light stability by using the relative intensity change for each of the first and second sensors as input to a lookup table.

7. The system of claim 6 wherein the output of the lookup table is the probability that the ambient light level is stable for the first and second sensors.

8. A method of determining an ambient light level with a first and second sensor, the method comprising the following steps:

determining a first ambient light level using the first sensor at a plurality of times;

computing a first relative intensity change for the first ambient light level;

determining a second ambient light level using the second sensor at a plurality of times;

computing a second relative intensity change for the second ambient light level;

determining an ambient light stability factor in response to the first relative intensity change and the second relative intensity change;
and

using the ambient light stability factor to detect the change in the ambient light level.

9. The method of claim 8 including the further step of adjusting a light-related control in accordance with the detected change in light level.

10. The method of claim 8 further comprising:
adjusting the first ambient light level in response to the ambient light stability factor to generate a first filtered ambient light level; and
adjusting the second ambient light level in response to the ambient light stability factor to generate a second filtered ambient light level.
11. The method of claim 10 further comprising the step of adjusting an illumination source in response to one of the first filtered ambient light level and the second filtered ambient light level.
12. The method of claim 11 wherein the illumination source is adjusted in response to the greater of the first filtered ambient light level and the second filtered ambient light level.
13. The method of claim 9 wherein the rate of adjustment of the light-related control is proportional to the ambient light stability factor.
14. The method of claim 8 wherein the step of computing a relative intensity change for each of the first and second ambient light levels is performed by finding the difference between a previous ambient light level and the ambient light level for each of the first and second sensors.
15. The method of claim 8 wherein the step of determining the ambient light stability factor is performed by using the relative intensity change for both the first and second sensors as inputs to a lookup table.

16. The system of claim 15 wherein the output of the lookup table is the probability that the ambient light level is stable.

17. The system of claim 10 wherein the steps of adjusting the first and second ambient light levels in response to the ambient light stability factor is performed by adjusting a previous ambient light level by a factor proportional to the ambient stability probability.

18. The system of claim 17 further comprising the step of adjusting the brightness of an illumination source in response to the greater of the filtered first and second ambient light levels.

19. A computer-readable medium containing a program having instructions which execute the following procedure:

computing a first relative intensity change for a first ambient light level from a first sensor;

computing a second relative intensity change for a second ambient light level from a second sensor;

determining an ambient stability probability from the first relative intensity change and the second relative intensity change;

adjusting the first ambient light level in response to the ambient stability probability to generate a first filtered ambient light level; and

adjusting the second ambient light level in response to the ambient stability probability to generate a second filtered ambient light level.

20. The computer-readable medium of claim 19 wherein the program further includes instructions for adjusting an illumination source in response to the greater of the first filtered ambient light level and the second ambient light level.

21. The computer-readable medium of claim 19 wherein the program further includes instructions for computing the relative intensity change for each of the first and second ambient light levels by finding a difference between a previous ambient light level and the ambient light level for each of the first and second sensors.

22. The computer-readable medium of claim 19 wherein the program further includes a lookup table for determining the ambient stability probability by using the relative intensity change for both the first and second sensors as inputs to the lookup table.

23. The computer-readable medium of claim 22 wherein the output of the lookup table is the probability that the ambient light level is stable for the first and second sensors.

24. The computer-readable medium of claim 19 wherein the program further includes instructions for adjusting the first and second light levels in response to the ambient stability probability by a factor proportional to the ambient stability probability in order to generate the filtered first and second ambient light levels.

25. A system for sensing ambient light, comprising:
first light sensing means generating a first ambient light signal;
second light sensing means generating a second ambient light signal; and
processing means in communication with the first and second light sensing means, the processing means being configured to generate first and second filtered ambient light signals in response to the probability that at least one of the first and second sensors has experienced a localized ambient light level change.
26. The system of claim 25 wherein the processing means is configured to determine the probability that one of the first and second light sensors has experienced a localized ambient light level change.
27. The system of claim 25 wherein the processing means is configured to determine the probability that at least one of the first and second sensors has experienced a localized ambient light level change by determining a relative intensity change of the ambient light levels for each of the first and second sensors.
28. The system of claim 27 wherein the ambient stability probability is determined by comparing the relative intensity changes of the ambient light level for the first and second sensors.
29. The system of claim 25 wherein the processing means is configured to adjust the brightness of an illumination source in response to the greater of the first and second filtered ambient light signals.